



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,141	01/19/2001	Peter N. Devreotes	01107.00060	8190

22907 7590 01/29/2003

BANNER & WITCOFF
1001 G STREET N W
SUITE 1100
WASHINGTON, DC 20001

EXAMINER

BASI, NIRMAL SINGH

ART UNIT	PAPER NUMBER
----------	--------------

1646

DATE MAILED: 01/29/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,141

Applicant(s)

DEVREOTES et al

Examiner

Nirmal S. Basi

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 19, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-76 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 1646

DETAILED ACTION

3. *Election/Restriction*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-5, drawn to functional α subunit polypeptide of heterotrimeric G protein comprising a fluorescent or luminescent protein, classified in class 530, subclass 402.
- II. Claims 6-10, drawn to functional β subunit polypeptide of heterotrimeric G protein comprising a fluorescent or luminescent protein, classified in class 530, subclass 402, for example .
- III. Claims 11-20, 21-25, 56, 57, drawn to functional heterotrimeric G protein polypeptide comprising an α subunit comprising a first amino acid sequence encoding a first fluorescent or luminescent protein and a β subunit comprising a second amino acid sequence encoding a first fluorescent or luminescent protein, classified in class 530, subclass 402, for example.
- IV. Claims 11, 13-20, 56, drawn to functional heterotrimeric G protein polypeptide comprising an α subunit comprising a first amino acid sequence encoding a first fluorescent or luminescent protein and a γ subunit comprising a second amino acid sequence encoding a first fluorescent or luminescent protein, class 530, subclass 402, for example.
- V. Claims 26-30, 38, drawn to nucleic acid encoding a functional α subunit polypeptide of heterotrimeric G protein comprising a fluorescent or luminescent protein, vector

Art Unit: 1646

comprising said nucleic acid and cell comprising said nucleic acid, classified in class 536, subclass 23.4 for example.

5 VI. Claims 31-38, drawn nucleic acid encoding functional β subunit polypeptide of heterotrimeric G protein comprising a fluorescent or luminescent protein, vector comprising said nucleic acid and cell comprising said nucleic acid, classified in class 536, subclass 23.4

10 VII. Claims 39-48, 58-60, drawn to eukaryotic cell comprising a nucleic acid encoding functional α subunit of a heterotrimeric G protein comprising an amino acid sequence encoding a first fluorescent or luminescent protein and a nucleic acid encoding a functional β subunit of a heterotrimeric g protein which comprises an amino acid sequence encoding a second fluorescent or luminescent protein, wherein the cell expresses a functional heterotrimeric g protein which is capable of FRET or BRET, classified in class 435, subclass 325.

15 VIII. Claims 39, 41-48, 58-60 drawn to eukaryotic cell comprising a nucleic acid encoding functional α subunit of a heterotrimeric G protein comprising an amino acid sequence encoding a first fluorescent or luminescent protein and a nucleic acid encoding a functional γ subunit of a heterotrimeric g protein which comprises an amino acid sequence encoding a second fluorescent or luminescent protein, wherein the cell expresses a functional heterotrimeric g protein which is capable of FRET or
20 BRET, classified in class 435, subclass 325.

Art Unit: 1646

- IX. Claims 49-52 drawn to method for detecting conformational changes in a protein, classified in class 435, subclass 7.1.
- X. Claims 53-55, drawn to a method for detecting G protein coupled receptor signaling using the cell of Group VII, classified in class 435, subclass 7.21
- 5 XI. Claims 53-55, drawn to a method for detecting G protein coupled receptor signaling using the cell of Group VIII, classified in class 435, subclass 7.21
- XII. Claims 61-63, drawn to functional heterotrimeric G protein polypeptide comprising an α subunit comprising a fluorescent or luminescent moiety and a β subunit comprising a quenching moiety, classified in class 435, subclass 7.1, for example
- 10 XIII. Claims 61-63, drawn to functional heterotrimeric G protein polypeptide comprising an α subunit comprising a fluorescent or luminescent moiety and a γ subunit comprising a quenching moiety, classified in class 435, subclass 7.1, for example
- XIV. Claims 64-69, drawn to functional γ subunit polypeptide of heterotrimeric G protein comprising a fluorescent or luminescent protein, classified in class 530, subclass 402.
- 15 XV. Claims 70-76, drawn nucleic acid encoding functional γ subunit polypeptide of heterotrimeric G protein comprising a fluorescent or luminescent protein, vector comprising said nucleic acid and cell comprising said nucleic acid, classified in class 536, subclass 23.4.

The inventions are distinct, each from the other because of the following reasons:

Art Unit: 1646

The products of Groups I-VIII and XII-XV are distinct because they have distinct functional, chemical and physical properties and are capable of separate use and manufacture.

The Inventions of Groups I-VII and XII-XV and the methods of Group IX are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the Inventions of Groups I-VII and XII-XV may be used for the production of antibodies.

The Inventions of Groups VII and the methods of Group X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the Inventions of Groups VII may be used for the production of antibodies.

The Inventions of Groups I-VI and VIII-XV are distinct from the methods of Group X wherein the Inventions of Groups I-VI and VIII-XV can neither be used in nor made by the methods of Invention X.

The Inventions of Groups VIII and the methods of Group XI are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially

Art Unit: 1646

different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the Inventions of Groups VIII may be used for the production of antibodies.

5 The Inventions of Groups I-VII and IX-XV are distinct from the methods of Group XI wherein the Inventions of Groups I-VI and VIII-XV can neither be used in nor made by the methods of Invention XI.

The methods of Groups IX-XI are distinct from each other because they are independent, using separate method steps, active agents and having different effects.

10 Because these inventions are distinct for the reasons given above and have acquired a separate status in the art, restriction for examination purposes as indicated is proper. A search of the art for Inventions I-XV would not be co-extensive with each other. Because the searches required for these inventions are not co-extensive an examination of the materially different, patentably distinct inventions in a single application would constitute a serious burden on the examiner.

15 An election to prosecute one of the groups listed I-XI must be made. Affirmation of this election must be made by applicant in responding to this Office action.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37
20 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

Art Unit: 1646

Advisory Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirmal Basi whose telephone number is (703) 308-9435. The examiner can normally be reached on Monday-Friday from 9:00 to 5:30.

5

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, can be reached on (703) 308-6564. The fax phone number for this Group is (703) 308-0294.


10

Official papers filed by fax should be directed to (703) 308-4242. Faxed draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

15

Nirmal S. Basi
Art Unit 1646
January 27, 2003


YVONNE EYLER, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600